## Massachusetts Department of Public Health (MDPH) Immunization Program

#### **MODEL STANDING ORDERS**

### Tetanus, Diphtheria and Acellular Pertussis (Tdap) Vaccine

This model standing order is current as of April 2007. It should be reviewed against the most current recommendations and may be revised by the clinician signing it.

**Routine Vaccination:** Administer a *single* dose of Tdap in place of a *single* booster dose of Td to everyone aged 11—64 years who has never received Tdap.

• The preferred age for adolescents is 11- 12 years.

**Preventing Spread of Pertussis to Infants:** Administer Tdap to household contacts and caregivers of infants aged < 12 months (e.g., parents, grandparents < 65 years of age, and all household members, child care providers, health care personnel, etc.).

**During Pertussis Outbreaks:** Administer Tdap to persons 11 - 64 years of age who have never received Tdap and it has been at least 2 years since receipt of their last tetanus toxoid-containing vaccine. Consider shorter intervals if there is a high risk of pertussis transmission.

Tetanus Prophylaxis in Wound Management for people 11 - 64 years of age: Administer a single dose of Tdap instead of Td, if they have not previously received Tdap. If Tdap is not available or was previously administered, administer Td. See Table 5.

# Minimum Interval between Tdap and last dose of Td:

- **Adolescents:** > 5 years
- **Adults:** > 10 years
- Consider intervals of  $\leq 2$  years since the previous dose of  $Td^{1,2}$ :
  - o Health care workers (recommended)
  - o For household contacts and caregivers of infants aged < 12 months (suggested)
  - o During increased community pertussis activity or outbreaks
  - o For individuals with comorbid conditions (e.g., chronic cardiovascular disease, HIV infections, neuromuscular disorders)

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<sup>&</sup>lt;sup>1</sup> The safety of intervals as short as 2 years is supported by 3 Canadian studies (n = 6,000), but shorter intervals can be used. In the situations above, the benefit of protection from the vaccine generally outweighs the risk of reactions following shorter intervals.

<sup>&</sup>lt;sup>2</sup> Off-label recommendation. See MMWR2006;55(R-2), MMWR 2006;55(R-17) and Pregnant Women: Provisional ACIP Recommendations for the Use of Tdap Vaccine (8/06) <a href="http://www.cdc.gov/nip/recs/provisional\_recs/tdap-preg.pdf">http://www.cdc.gov/nip/recs/provisional\_recs/tdap-preg.pdf</a>.

Table 1. Approved Formulations of Tdap Vaccines\*

Vaccine Manufacturer	Vaccine Trade Name	Age Group
GlaxoSmithKline	BOOSTRIX <sup>®</sup>	10 - 18 years
sanofi pasteur	$ADACEL^{TM}$	11 - 64 years

<sup>\*</sup>Licensed for use as a single booster dose.

#### **ORDER:**

- 1. Provide patient, parent or legal representative with a copy of the Vaccine Information Statement (VIS) and answer any questions. A VIS for Tdap can be found at www.immunize.org/vis.
- 2. Screen for contraindications according to Table 1 on page 4.
- 3. Administer a *single* dose of Tdap vaccine (0.5 ml) intramuscularly (IM) in the deltoid at a 90<sup>0</sup> angle with a 22 25 gauge needle. Always check the package insert prior to administration of any vaccine.

The correct needle size is important to ensure injection into the deeper muscle mass and decrease local reactions. See table below:

Table 2. Needle Length

Sex/weight	Needle Length
Male & female < 60 kg (130 lbs)	1" (25 mm)
Female 60 – 90 kg (130 – 200 lbs)	1" – 1½" (25 – 38 mm)
Male 60 – 118 kg (130 – 260 lbs)	1" – 1½" (25 – 38 mm)
Female > 90 kg (200 lbs)	1½" (38 mm)
Male > 118 kg (260 lbs)	1½" (38 mm

- 4. Administer Tdap vaccine simultaneously with all other vaccines indicated, but at a different site. *Note:* Administer Tdap and meningococcal conjugate vaccine (MCV4) (both contain diphtheria toxoid) at the same visit, if feasible, to minimize the theoretical risk of increased local reactions. If simultaneous administration of Tdap and MCV4 is not possible, administer these vaccines at any time before or after each other.
- 5. If possible, observe patient for an allergic reaction for 15 minutes after vaccination. Syncope (vasovagal or vasodepressor reaction) can occur after vaccination, mostly in adolescents and young adults; of the observed syncopal events, 89% of occurred < 15 minutes after vaccination.
- 6. Have facilities and personnel available for treating immediate hypersensitivity reactions.
- 7. Report clinically significant adverse events to the Vaccine Adverse Event Reporting System (VAERS) at 1-800-822-7967, or via the VAERS website: http://yaers.hhs.gov.

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8. See the MDPH Immunization Program document, *General Protocols for Standing Orders*, for recommendations and requirements regarding vaccine administration, documentation, and consent.

# **Special Guidance for Administration of Tdap**

• No History of DTP/DTaP/Td/Tdap Vaccination: Individuals who have *never* received tetanus-diphtheria-pertussis vaccine should receive a series of 3 vaccinations using the following schedule. Substitute Tdap for any *one* of the 3 Td doses in the series.

Table 3. Schedule for Individuals with No History of DTP/DTaP/Td/Tdap Vaccination

Dose	Vaccine	Schedule
1	Tdap	
2	Td	≥ 4 weeks after Dose 1
3	Td	6 – 12 months after Dose 2

• **History of Incomplete Pertussis Vaccination** (Received DT/Td instead of DTP/DTaP): Administer a *single* dose of Tdap and additional doses of Td needed to complete the series.

Table 4. Contraindications and Precautions to Tdap

Valid Contraindications to Tdap Vaccine	Invalid Contraindications/Precautions (Tdap vaccine should be administered)
Severe allergic reaction to a vaccine component	Minor acute illness, with or without fever
or following a prior dose of tetanus, diphtheria or pertussis vaccines <sup>1</sup>	Non-anaphylactic allergy to a vaccine component
BOOSTRIX® and ADACEL <sup>TM</sup> in vials contain	Antimicrobial therapy
neither thimerosal nor latex. BOOSTRIX® prefilled syringes <b>do</b> contain latex.	Stable neurologic disorder
Encephalopathy, not attributed to another	Anticoagulation or bleeding disorder <sup>2</sup>
identifiable cause, $\leq 7$ days of administration of a pertussis vaccine	Brachial neuritis
Valid Precautions to Tdap Vaccine	Breastfeeding
Moderate or severe acute illness, with or without	Pregnancy <sup>3</sup>
fever (temporary precaution)	Immunosupression, including HIV infection
Guillain-Barré syndrome (GBS) ≤ 6 weeks after	History of pertussis <sup>4</sup>
a previous dose of tetanus vaccine	Seizure $\leq 3$ days after a previous dose of DTP/DTaP <sup>5</sup>
Progressive (in adolescents) or unstable (in adults) neurological disorder, uncontrolled	Collapse or shock-like state $\leq$ 48 hours after a previous dose of DTP/DTaP <sup>5</sup>
seizures or cerebrovascular event, or acute encephalopathy, until condition is stabilized	Temp > $104^{\circ}$ F $\leq 48$ hrs after a previous dose DTP/DTaP not attributable to another cause <sup>5</sup>

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Defer vaccination for > 10 years after last	Persistent, inconsolable crying lasting $\geq 3$ hours after a previous dose of DTP/DTaP <sup>5</sup>
	History of extensive limb swelling after DTP/DTaP that is not arthus-type reaction

<sup>&</sup>lt;sup>1</sup> Refer persons with a history of anaphylaxis to a component of any Tdap or Td vaccine to an allergist to determine whether they can safely receive tetanus toxoid (TT) vaccine.

- <sup>3</sup> **Pregnancy:** The ACIP recommends Td over Tdap when a pregnant woman requires protection against tetanus or diphtheria. However, pregnancy is **not** a contraindication for Tdap. In situations with increased risk for pertussis, consider administering Tdap to a pregnant woman, preferably in the 2nd or 3rd trimester. These situations include:
  - o Routine catch-up vaccination against pertussis in pregnant adolescents, because of their increased exposure to pertussis.
  - o Pregnant health care providers and child care providers
  - o Pregnant women employed in situations or living in a community with increased pertussis activity
  - o Wound protection in a pregnant woman

For more detailed recommendations regarding administration of Tdap to pregnant women, refer to *Prevention of Tetanus, Diphtheria and Pertussis among Pregnant Women: Provisional ACIP Recommendations for the Use of Tdap Vaccine* below.

Providers who administer Tdap to pregnant women should discuss the lack of data with them and report Tdap administration, regardless of the trimester, to the appropriate manufacturers' pregnancy registry: for BOOSTRIX® to GlaxoSmithKline Biologicals at 888-825-5249, or for ADACEL® to sanofi pasteur at 800-822-2463.

Table 3. Tetanus Prophylaxis in Wound Management among People 11–64 Years of Age

	Clean, minor wound		All other wounds <sup>1</sup>	
Hx of Adsorbed Tetanus Toxoid	Tdap or Td <sup>2</sup>	Tetanus immune globulin (TIG)	Tdap or Td <sup>2</sup>	TIG
Unknown or < 3 doses	Yes	No	Yes	Yes
≥ 3 doses	No <sup>3</sup>	No	No <sup>4</sup>	No

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<sup>&</sup>lt;sup>2</sup> Minimize the risk of bleeding after an IM injection by administering the vaccine immediately after the patient has received antihemophilia or other coagulation replacement factor. Use a 23-guage (or smaller) needle with immediate application of direct pressure to the vaccination site for > 2 minutes.

<sup>&</sup>lt;sup>4</sup> Administer Tdap to people with a history of pertussis according to routine recommendations.

<sup>&</sup>lt;sup>5</sup> These conditions, which are precautions for DTaP, are **not** precautions for Tdap.

#### References:

ADACEL™ package insert (<a href="http://www.fda.gov/cber/label/tdapave061005LB.pdf">http://www.fda.gov/cber/label/tdapave061005LB.pdf</a>).
BOOSTRIX® package insert (<a href="http://www.fda.gov/cber/label/tdapala050305LB.pdf">http://www.fda.gov/cber/label/tdapala050305LB.pdf</a>).

CDC. General recommendations on immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR. 2006 / 55(RR15);1-48. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5515a1.htm?s\_cid=rr5515a1\_e

CDC. Preventing tetanus, diphtheria, and pertussis among adolescents: use of tetanus toxoid, reduced diphtheria toxoid and acellular pertussis vaccines: recommendations of the ACIP. MMWR. 2006 / 55(Early Release);1-34. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr55e223a1.htm

CDC. Preventing tetanus, diphtheria, and pertussis among adults: use of tetanus toxoid, reduced diphtheria toxoid and acellular pertussis vaccine: recommendations of the ACIP and recommendation of ACIP, supported by the Healthcare Infection Control Practices Advisory Committee (HICPAC), for use of Tdap among health-care personnel. 2006 / 55(RR17);1-33. http://0-www.cdc.gov.mill1.silibrary.org/mmwr/preview/mmwrhtml/rr5517a1.htm

CDC. Prevention of tetanus, diphtheria and pertussis among pregnant women: provisional ACIP recommendations for the use of Tdap vaccine, 2006. Available at <a href="http://www.cdc.gov/nip/recs/provisional">http://www.cdc.gov/nip/recs/provisional</a> recs/tdap-preg.pdf.

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<sup>&</sup>lt;sup>1</sup> Such as, but not limited to wounds contaminated with dirt, feces, soil, saliva; puncture wounds; avulsions; and wounds resulting from missiles, crushing, burns, and frostbite.

<sup>&</sup>lt;sup>2</sup> Tdap is preferred for people 11-64 years of age who have never received Tdap.

<sup>&</sup>lt;sup>3</sup> Yes, if > 10 years since the last tetanus toxoid-containing vaccine dose.

<sup>&</sup>lt;sup>4</sup> Yes, if > 5 years since the last tetanus toxoid-containing vaccine dose.